

Lakeside Pedestrian Area Plan



**Prepared for County of San Diego
Department of Planning and Land Use**

**By RBF Consulting
San Diego, Ca**

April 2010

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I. INTRODUCTION

The Lakeside Pedestrian Area Plan is part of the County of San Diego Pedestrian Master Plan (PMP), a project prepared for the County's Department of Planning and Land Use (DPLU) and funded by a grant from the San Diego Association of Governments (SANDAG).

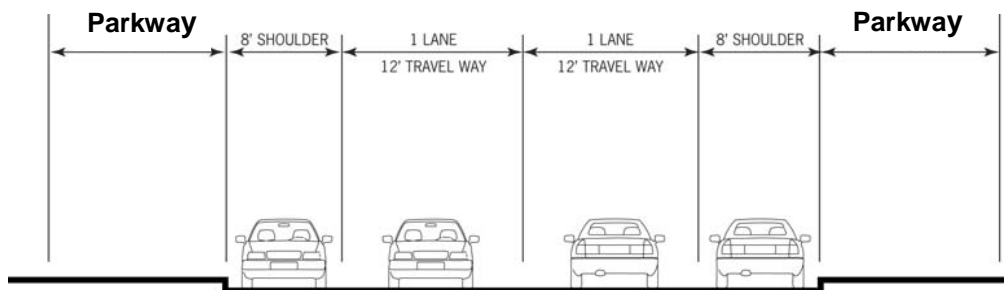
The PMP's first phase was to prepare a Pedestrian "Toolbox" that contains guidelines and recommended solutions to improve or enhance the pedestrian environment within the public right-of-way. The document supports the objectives of the community development model stated in the County's General Plan, which designates densities, land uses, and roadway classifications based on the characteristics of the area.

The Pedestrian Toolbox focuses primarily on the Parkway section of public streets -- defined as the area between the curb, or edge of travel lane / shoulder, and the right-of-way line. It also addresses other roadway components that directly affect the pedestrian environment. Separate Toolbox sections include the Parkway Zone, Walkability, Intersections, and Traffic Calming.

Parkway zone improvements that benefit pedestrians include adequate curb and gutter for the context; street trees or landscaping to buffer pedestrians from adjacent traffic and provide shade; and in some cases, street furniture and public art for comfort and interest.

Walkability improvements are intended to connect various destinations, such as schools, parks, library, and shopping centers, and improve the pedestrian environment. They include clear Americans with Disabilities Act (ADA) routes, curb ramps at intersections, a sidewalk width that is appropriate for the street type, and well-defined pedestrian crossings. Also included are transit stop improvements that make taking transit more comfortable, such as a bench, shade, and shelter; and in appropriate locations, midblock crossings that typically include signage and flashing lights for increased visibility.

Intersection improvements are intended to reduce pedestrian-automobile conflicts, and to improve pedestrian visibility to motorists. Solutions include providing clearly marked crosswalks; reducing pedestrian crossing distances or providing enough time to cross the street; and not allowing "free" right turn movements, where traffic does not stop before turning.



Parkway Area within Roadway Right-of-Way

Traffic calming describes physical changes to the roadway that are intended to reduce traffic speeds -- typically done where posted speed limits are low and traffic should move slowly, such as along school routes, residential neighborhoods, or walkable commercial areas with many pedestrians. Examples include raised medians, curb extensions that narrow the road, and traffic circles that make vehicles deviate from a straight line down the road.

The Pedestrian Master Plan's second phase was to prepare pedestrian area plans in five communities and look at the existing pedestrian conditions, identify deficiencies, and recommend solutions from the Pedestrian Toolbox. As more pedestrian area studies are done in additional unincorporated communities, they collectively will form the Pedestrian Master Plan for the County of San Diego.

A well-designed pedestrian environment that is suitable for the intended users is critical to maintain safety and encourage pedestrian activity regardless of the surrounding land uses.

Pedestrians represent a wide range of our population, including children walking to and from school, teens visiting friends, adults on errands, and people who walk for recreation or exercise.



Pedestrians also include people with disabilities using walkers, wheelchairs or other assistance devices as well as transit users who walk between their destinations and transit stops.



II. PROJECT PROCESS

The Lakeside Pedestrian Area Plan examined a specific area within the Lakeside community to determine existing conditions and deficiencies in the pedestrian network and to recommend potential improvements. The Lakeside Community Planning Group prioritized the potential improvements and cost estimates were prepared for two high-priority projects in order to compete for funding at the local, state, and federal level.

A. Document Organization

Section I. Introduction presents the project background.

Section II. Project Process describes the planning process used for the Plan, the criteria to select the study area, and the important factors underlying field observations.

Section III. Existing Pedestrian Conditions and Recommendations is organized by Zone -- a street segment or smaller area within the larger study area. Each Zone includes photographs, a table of specific pedestrian needs and solutions, and a concept map depicting solutions by location.

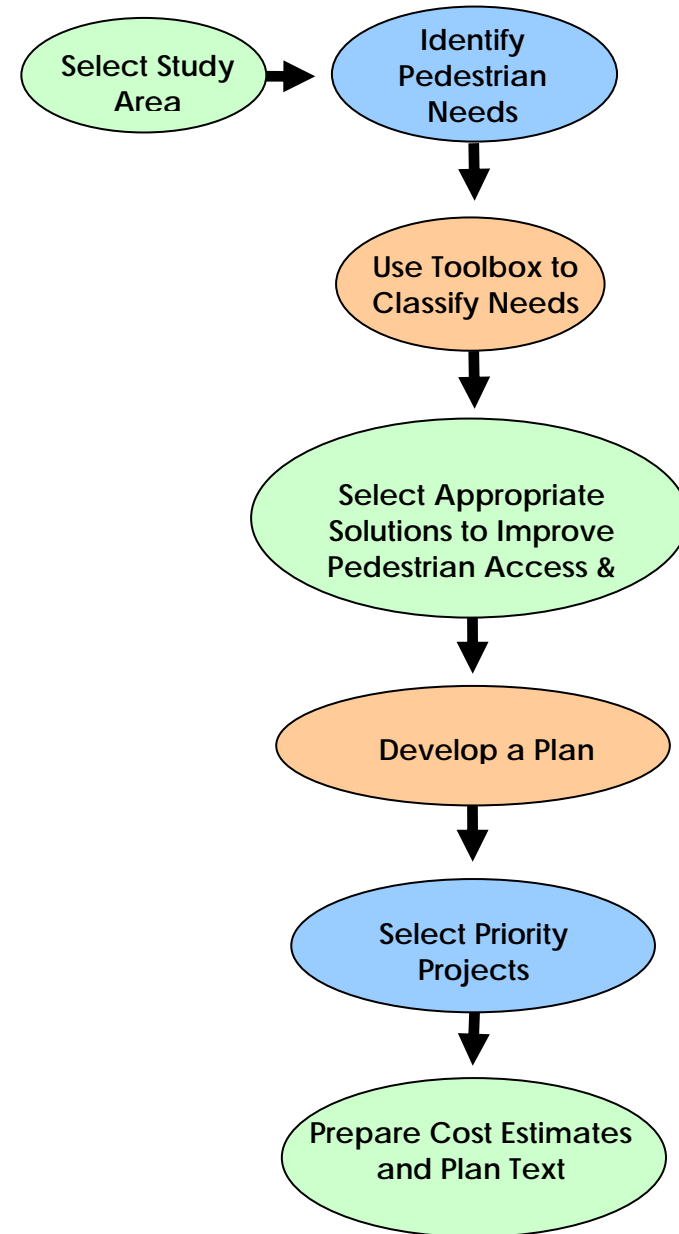
Evaluation of the effects on traffic if a particular solution is implemented is not included at this Pedestrian Area Plan level. At a later stage the effects of certain solutions would need to be studied further by a traffic engineer.

Section IV. Priority Projects includes a project description and cost estimates for two projects derived from the concept maps.

B. Process to Develop Plan

The planning process to develop the Lakeside Pedestrian Area Plan was a streamlined effort, resulting in a conceptual plan intended to be a starting point for pedestrian improvements and refined over time with more detailed engineering evaluation and design. Planning steps included:

- ♦ **Select Study Area for Plan** -- Initial contact with the community planning group to establish the boundary for the Pedestrian Area Plan.
- ♦ **Identify Pedestrian Needs** -- Distribution of a community input form and consultation with individuals and County Department of Public Works staff for information on existing conditions and planned improvements. Conduct field observations and measurements to identify pedestrian needs and classify needs per the Pedestrian Toolbox.
- ♦ **Select Solutions and Develop a Plan** -- Select appropriate solutions from the Pedestrian Toolbox and map them onto a conceptual plan. Present the findings and recommendations for pedestrian improvements to the community sponsor group.
- ♦ **Select Priority Projects** -- Community planning group considers the recommendations and selects priority projects.
- ♦ **Prepare Study and Cost Estimates** -- Prepare the graphics and text for the Pedestrian Area Plan, plus the cost estimates for the two selected priority projects.



C. Plan Area Criteria

The pedestrian area plans are designated for those parts of the community with relatively high pedestrian-oriented land uses, which may include the following:

Civic – Government and public facility buildings such as county offices, libraries, courts, and recreation and community centers with high levels of pedestrian traffic.

Schools – Public and private schools that are major pedestrian destinations during school hours and may also be used after hours for community and recreational purposes.

Commercial – Pedestrian-oriented or accessible commercial districts, blocks, or small nodes, depending on the community's size. These areas either have or are planned to have a higher concentration of commercial uses, such as shopping, convenience services, eating/drinking establishments, or entertainment that generates pedestrian traffic.

Higher Density Residential – This term refers to apartment complexes, condominiums, town homes, or detached single-family homes on relatively small lots. Only higher density residential areas in close proximity to significant commercial areas, civic uses, or transit stops were considered.

Parks and Open Space – Parks and open space areas are important pedestrian activity areas and often include pathways that serve as local pedestrian routes. Only areas in close proximity to the other pedestrian-oriented land uses or transit stops were considered.

D. Field Observation Criteria

The following factors were the basis for conducting field observations.

Connectivity – Allows people to conveniently and safely walk to where they want and need to go, especially between major pedestrian activity centers, for example, a school and park. Every community should have a network of sidewalks that allows continuous safe travel between major pedestrian attractors.

Continuity – Refers to whether sidewalks or walkways already exist, are non-existent, or are discontinuous, and whether people are forced to walk on roadways or parallel informal pathways.

Accessibility and Physical Obstacles – Curb ramps should be provided at crossings for individuals, in compliance with ADA requirements. Walking surfaces should be smooth and cleared of debris. Sidewalks and walkways should not have utility poles, fire hydrants, and other pieces of infrastructure located in the center of the intended walkway. Other obstructions blocking pedestrians may be overgrown vegetation or illegal vehicular parking in the pedestrian way.

Safety – Issues related to pedestrian safety include intersection or street crossings, excessive vehicle speed, inadequate lighting, lack of signage to aid driver awareness of pedestrians, and trip hazards.

Streetscape – Street trees for shade and sidewalk furniture for resting help to create an environment both comfortable and inviting for the pedestrian.

III. EXISTING PEDESTRIAN CONDITIONS AND RECOMMENDATIONS

The unincorporated community of Lakeside is located in the western foothills of the Cuyamaca Mountains on the San Diego River approximately 21 miles east of downtown San Diego. The Lakeside study area is characterized by local-serving commercial uses and low-density single-family and multi-family residential. Pedestrian activity is concentrated along Maine Avenue and Vine Street. Several shops and other mixed commercial uses are located along Maine Avenue. Vine Street provides direct access to Lindo Lake Park, the community center and the public library.

The Lakeside study area is located east of State Route 67 and is bounded by Maplevue Street, Ashwood Street, Vine Street, Woodside Avenue, and Channel Road.

There is a relatively compact group of uses within the study area -- Lindo Lake Park, the community center, public library, post office, and downtown shops and restaurants -- that are within walking distance of each other and adjacent residential areas. However, the interrupted sidewalk connections between these uses and throughout the community create gaps that limit accessibility and connectivity for pedestrians.

Overall, the pedestrian network is discontinuous and in some areas is hindered by speeding traffic. Sidewalks on some streets are intermittent or non-existent, causing pedestrians to walk in the roadway. Connecting the community by completing or constructing continuous sidewalks, installing curb extensions in appropriate locations, and adding shade trees would provide a more convenient, safe, and accessible pedestrian environment.

A. Pedestrian Area Zones

The Lakeside Pedestrian Area Plan is divided up into three zones, which are shown on Figure 1.

The following information for each Zone is provided in subsequent pages:

Existing Pedestrian Needs -- A list of general pedestrian needs on major roadways, based on field observations, measurements, and input from the community planning group. Sample photographs are shown of the existing streets and pedestrian conditions. Letters on the map correspond to the photographs.

Pedestrian Needs and Toolbox Matrix -- A table providing details on more specific locations of pedestrian needs; improvement opportunities to address the issue; and classification of the recommended solutions per the County's Pedestrian Toolbox.

Pedestrian Concept Map -- A map with labels shows potential solutions to the pedestrian needs and their general location. The different colors indicate the type of improvement that is recommended from the County's Pedestrian Toolbox -- Parkway Zone, Walkability, Intersection, or Traffic Calming.

Zone I -- The area generally bounded by Maplevue Street, Ashwood Street, Laurel Street, and SR-67.

Zone II -- The area generally bounded by Laurel Street, the southern terminus of Ashwood Street, Lakeshore Drive, and SR-67.

Zone III -- An area generally bounded by Lakeshore Drive, Vine Street, Woodside Avenue and Channel Road.

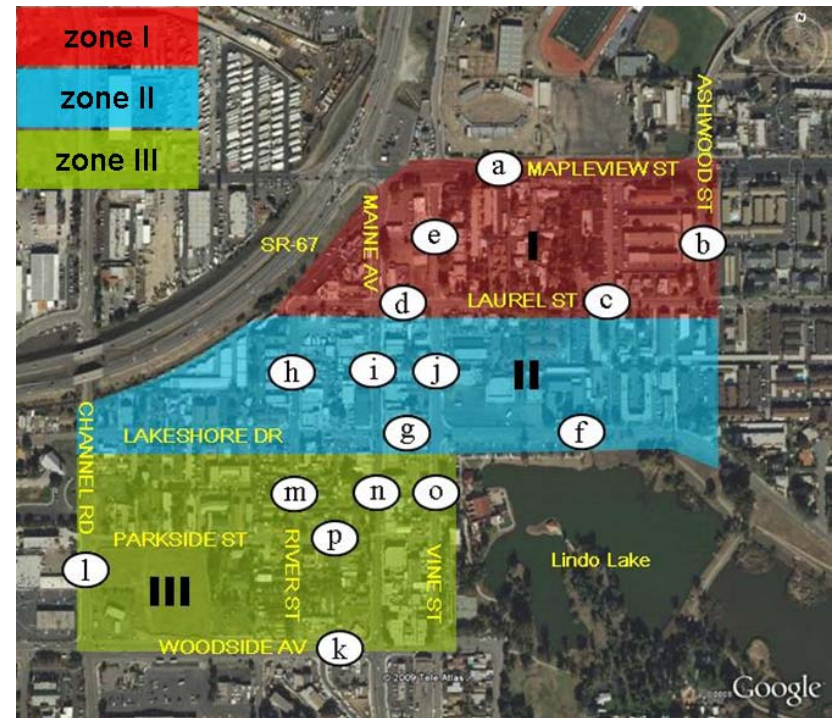


Figure 1 -- Lakeside Pedestrian Area Study Zones

B. ZONE I PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ♦ Continuous sidewalks
- ♦ Marked crosswalks
- ♦ Safe separation from vehicles of pedestrians along Laurel Street
- ♦ Traffic controls at intersection of Ashwood Street and Laurel Street
- ♦ Pedestrian travelway free of parked vehicles

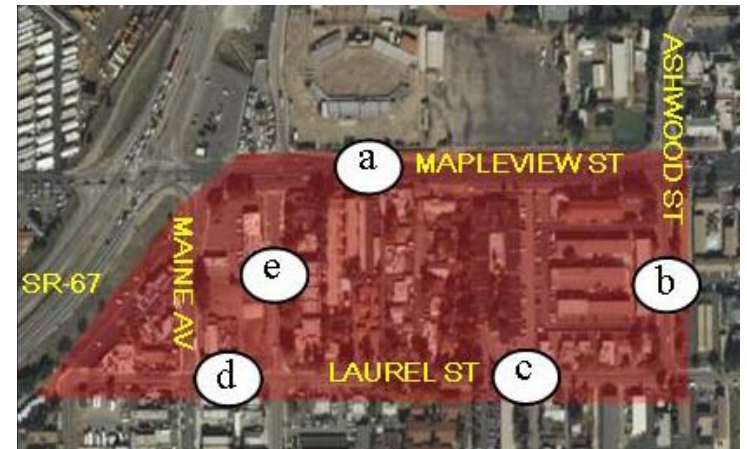
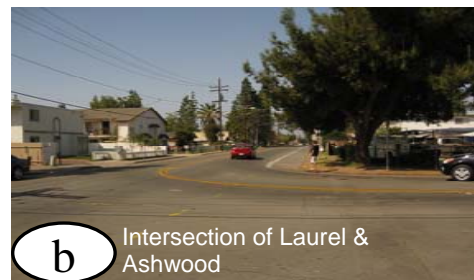


Table 1 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE I -- LAKESIDE











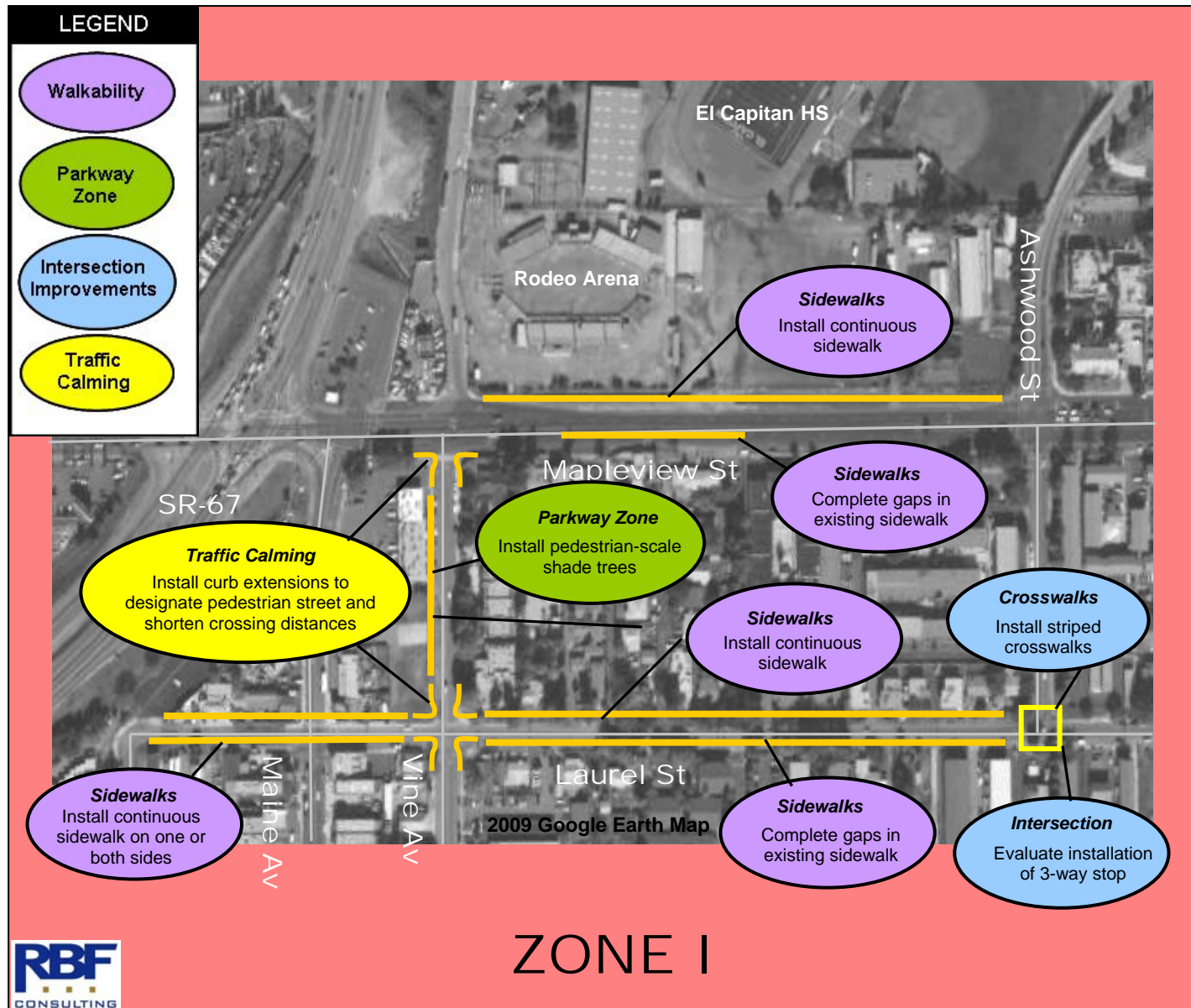
PEDESTRIAN NEEDS AND TOOLBOX MATRIX							
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX				
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements	
Zone I							
(a) Maplevue Street between Vine Street and Ashwood Street	Paved sidewalk on north side (currently DG surface); continuous sidewalk on south side west of the drainage channel, with maintained vegetation that does not impede pedestrian access.	Provide continuous sidewalk, especially on south side; potential to stripe a parking lane on south side. Remove vegetation immediately.					
(b) Ashwood Street between Maplevue Street and Laurel Street	Sidewalk on west side of street near intersection with Laurel. Traffic controls to restrict speeding through continuous turns/straight away at Ashwood & Laurel's 3-way intersection facilitate safe pedestrian crossing. Crosswalks on all legs of intersection, rather than only the east leg.	Provide continuous sidewalks along school routes. Evaluate additional traffic control at Ashwood & Laurel intersection, e.g., 3-way stop, and provide additional marked crosswalks.					
(c) Laurel Street between Ashwood Street and Vine Street	Sidewalk, curb or gutter on north side so pedestrians are not forced to use bike lane. Currently cars are allowed to park next to bike lane, with no space designated for pedestrians. Continuous sidewalk on south side, closing the current gap near intersection with Vine St. and midblock.	Provide continuous sidewalk, especially on south side of street.					
(d) Laurel Street between Vine and River Streets	Sidewalks on both sides between Maine and River. Currently, where there is no curb, vehicles park in the pedestrian travelway.	Provide continuous sidewalks on one or both sides of the street.					
(e) Vine Street between Maplevue and Laurel Streets	Sidewalk on west side from Vine St north to midblock with shade on same segment. Marked crosswalks at intersection of Vine and Laurel.	Establish Vine as a bicycle and pedestrian-oriented street. Evaluate the potential for curb extensions to reduce crossing distances at Vine St. intersections with Maplevue and Laurel. In addition to the provision of bicycle lanes, provide continuous sidewalks on west side of street and install street trees for shade. Stripe the parking					

Figure 2 ZONE I PEDESTRIAN CONCEPT PLAN -- LAKESIDE



C. ZONE II PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ♦ Continuous sidewalks
- ♦ Marked crosswalks
- ♦ Pedestrian travelway free of parked vehicles
- ♦ Shaded areas for pedestrians

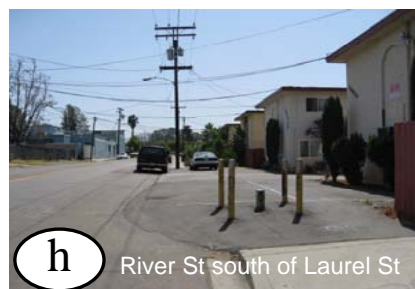
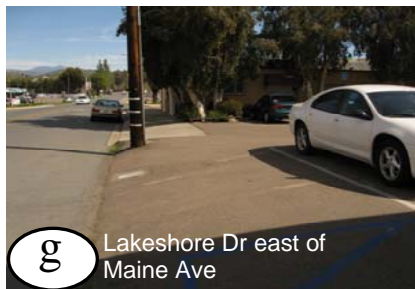
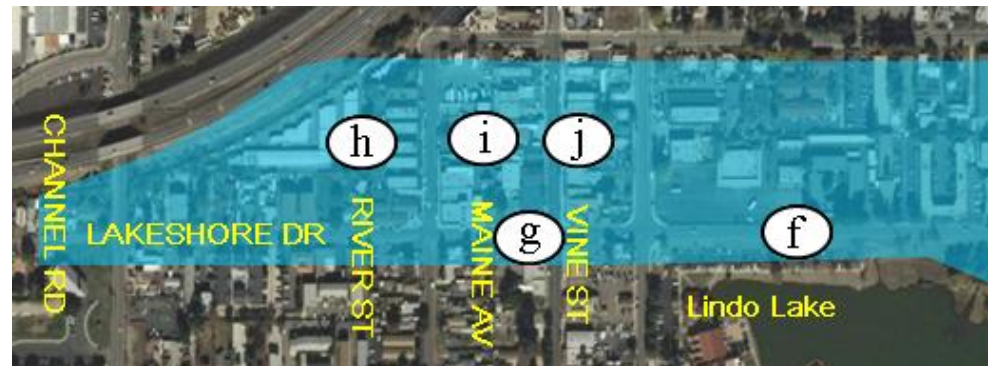
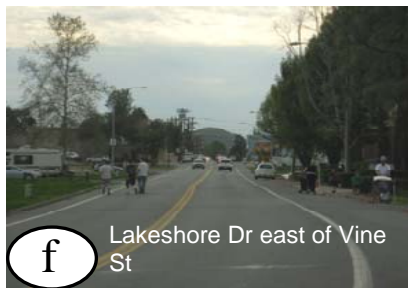


Table 2 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE II -- LAKESIDE










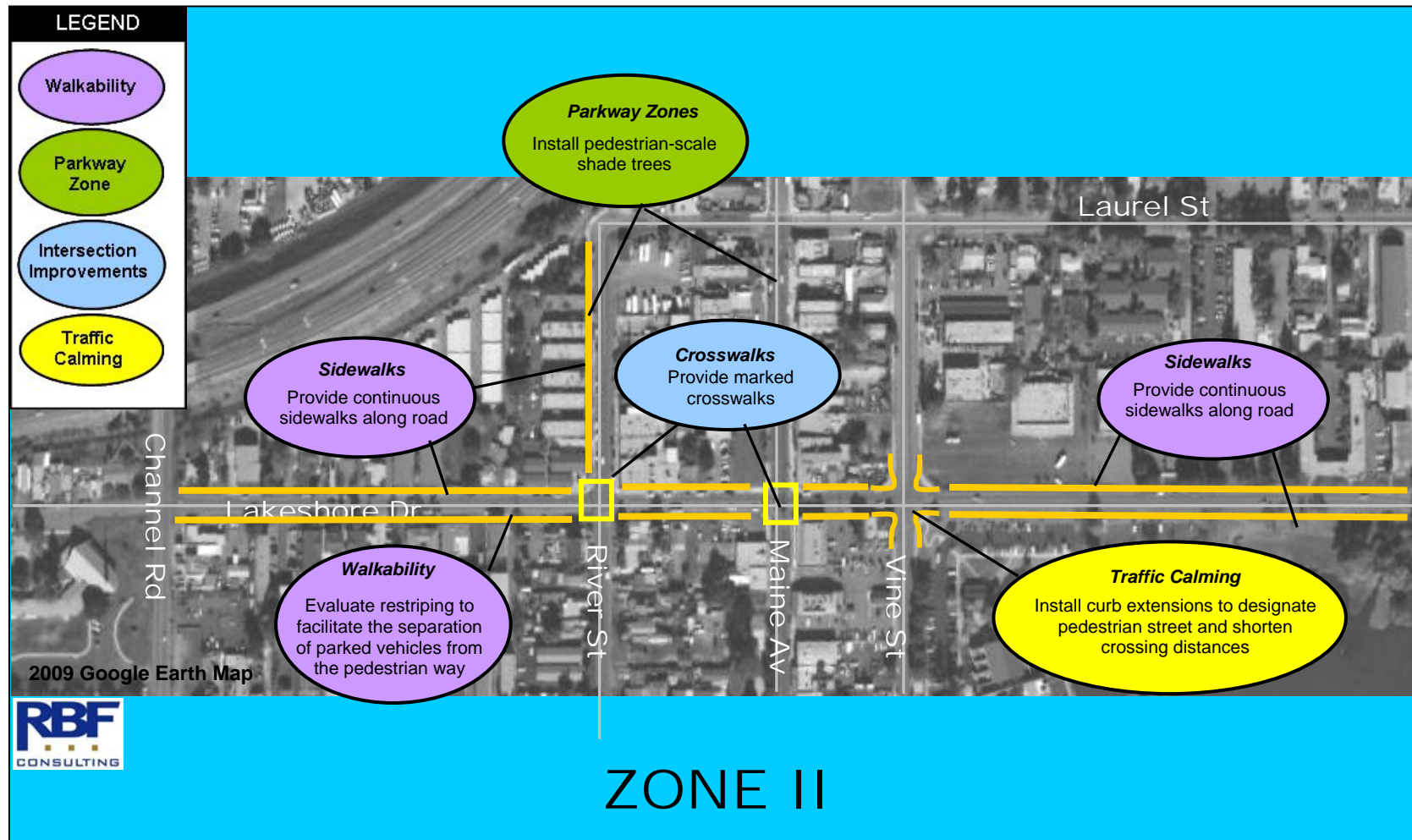
PEDESTRIAN NEEDS AND TOOLBOX MATRIX							
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX				
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements	
Zone II							
(f) Lakeshore Drive between Vine Street and Park Street entrance to Lindo Lake Park	Sidewalk needed on south side adjacent to Lindo Lake Park. On north side, new or wider segments are necessary, with some segments adjacent to steep down slopes.	Provide continuous sidewalk of adequate width on both sides of street.					
(g) Lakeshore Drive between Vine Street and Channel Road	Continuous sidewalk between River St. and Channel Rd. on both sides of street. New sidewalk at gap near Lakeside Hotel, which has asphalt paving. Continuous sidewalk needed on south side between Maine Ave and Vine St. Pickup trucks parking on sidewalk block pedestrian use.	Provide continuous sidewalk on both sides of street. Replace with concrete sidewalk the asphalt paving mistakenly used as driveway on south side of Lakeshore between Maine and Vine.					
(h) River Street between Laurel St and Lakeshore Dr	Continuous sidewalk needed on west side of street along with new sidewalk on east side of street, except at corner of Lakeshore. Shade needed along new sidewalks.	Provide continuous sidewalk on both sides of street. Stripe a line to mark the parking lanes. Provide street trees for shade.					
(i) Maine Avenue between Laurel St and Lakeshore Dr	Pickup trucks parking on sidewalk block pedestrian use. SW corner at Lakeshore needs ADA ramp. Wider sidewalks where several utility poles are located in ROW. Additional shade.	Widen sidewalk around utility poles or relocate them outside of the travelway. Install ADA ramp. Block vehicular access to sidewalk. Provide street trees for shade.					
(j) Vine Street between Laurel St and Lakeshore Dr	Additional shade.	Establish Vine as a pedestrian-oriented street. Consider curb extensions to reduce crossing distances at Vine St intersections with Lakeshore Dr and Laurel St.					

Figure 3 ZONE II PEDESTRIAN CONCEPT PLAN -- LAKESIDE



D. ZONE III PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ♦ Even and repaired sidewalk paving near Lindo Lake
- ♦ Continuous sidewalks
- ♦ Marked crosswalks
- ♦ Shaded areas for pedestrians
- ♦ Pedestrian travelway free of parked vehicles

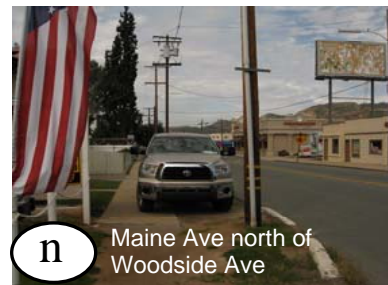
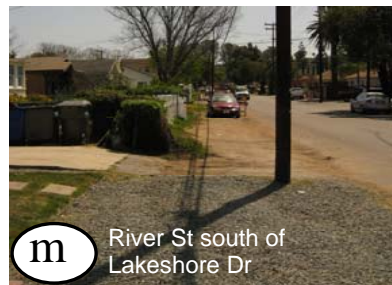
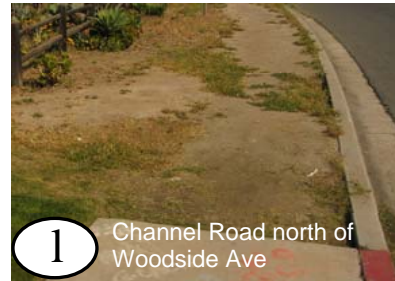
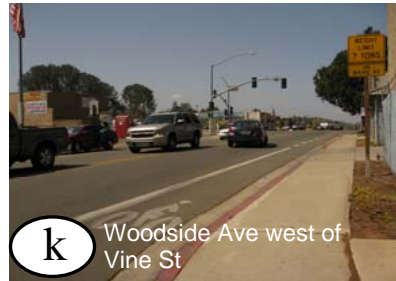


Table 3 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE III – LAKESIDE












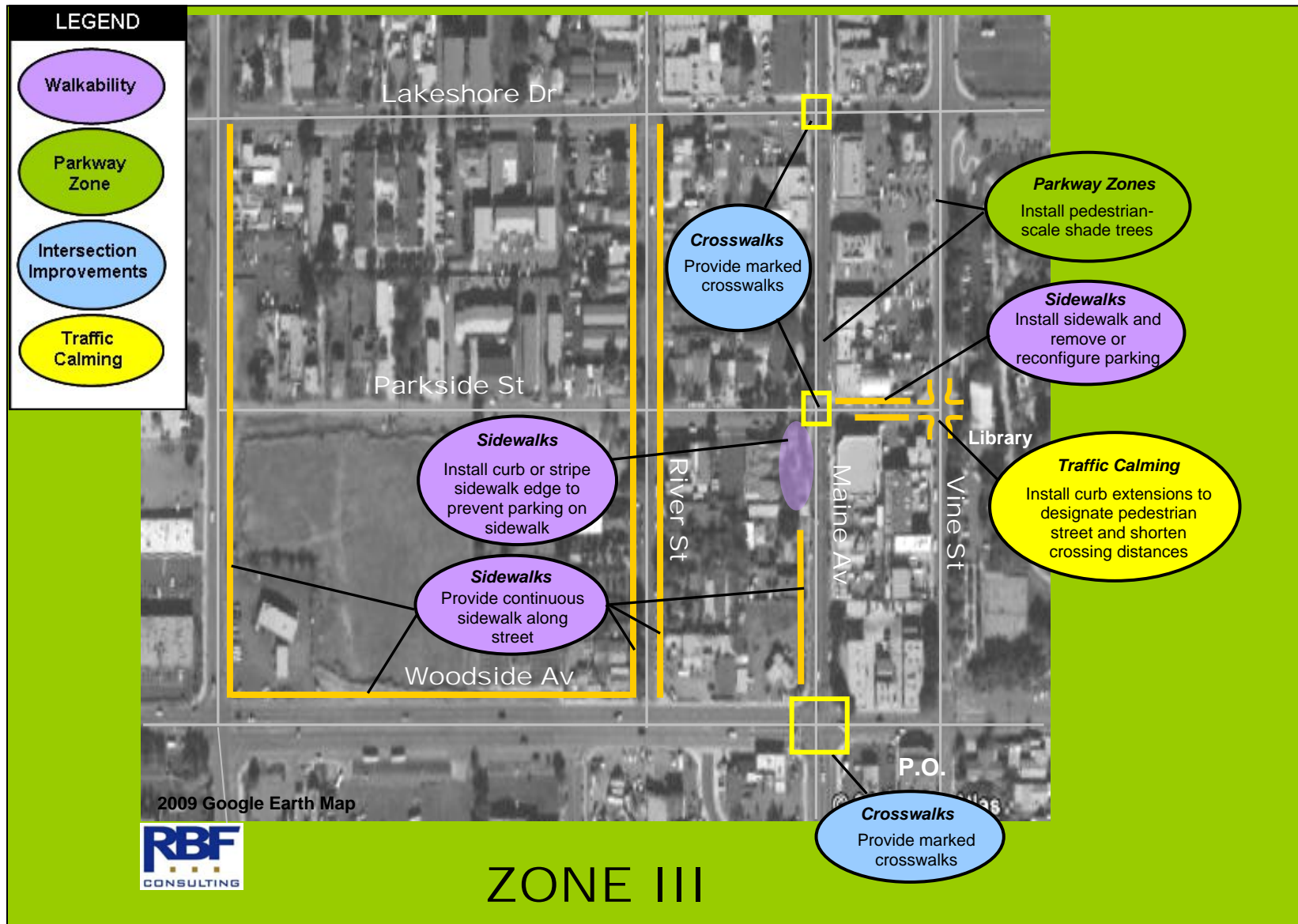
PEDESTRIAN NEEDS AND TOOLBOX MATRIX								
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX					
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements		
Zone III								
(k) Woodside Avenue between Vine Street and Channel Road	Repairs to cracked asphalt walkway from Vine St. east to Lindo Lake path. ADA ramp needed at NE corner of Maine and Woodside.	Repair asphalt walkway or replace with concrete sidewalk. Provide ADA ramp.						
(l) Channel Road between Woodside Avenue and Lakeshore Drive	Continuous sidewalk.	Provide continuous sidewalks.						
(m) River Street between Lakeshore Drive and Woodside Avenue.	Sidewalk needed on both sides of street; provide restriction on vehicles that park in pedestrian travelway so pedestrians are required to walk in the street.	Provide continuous sidewalks. Prior to sidewalk installation, as an interim measure, stripe a parking area to discourage vehicular parking on pedestrian travelway.						
III (n) Maine Avenue between Lakeshore Drive and Woodside Avenue	Continuous sidewalk with curb and gutter on west side from Woodside to Parkside; restriction on vehicles parking on pedestrian travelway. Additional shade.	Provide continuous sidewalks. Install curb and gutter or stripe edge of parking lane to discourage vehicular parking on pedestrian travelway. Provide street trees for shade.						
	(o) Vine Street between Lakeshore Drive and Woodside Avenue	Additional shade on pedestrian-oriented street. Marked crosswalks.	Establish Vine as a pedestrian-oriented street. Potential for curb extensions to reduce crossing distances at Vine St intersections with Lakeshore Dr and Parkside St. Opportunity to add shade trees from Lakeshore to Parkside.					
	(p) Parkside Street between Vine Street and Channel Road	Sidewalk on north side from Vine to Maine; continuous sidewalk on south side. From Maine to River half the block has additional curb & gutter. [From River to Channel, new sidewalk, curb and gutter was completed Spring 2009]	Provide continuous sidewalks, where necessary.					

Figure 4 ZONE III PEDESTRIAN CONCEPT PLAN – LAKESIDE



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IV. PRIORITY PROJECTS

Although there are no funds associated with this SANDAG-sponsored contract that would cover design or construction costs at this time, having the identified projects available will streamline future opportunities to compete for County, SANDAG, state, and federal funding opportunities.

On May 6, 2009, a presentation on the pedestrian needs and recommended improvements was provided to the Lakeside Community Planning Group (see Section III). The Planning Group considered the presentation by RBF Consulting, along with the Lakeside Economic Revitalization Plan dated May 1999, the Lakeside Revitalization Steering Committee Matrix, Capital Improvement Program and Safe Routes to School projects. As a result, the Planning Group identified the following projects as a priority for further consideration. They include, in order of priority, the following:

1. Continuous sidewalks on both sides of Maplevue Street from Ashwood Street to Maine Avenue, including an eight-foot wide sidewalk on the north side;
2. Continuous sidewalk on the north side of Laurel Street from Ashwood Street to River Street;
3. Continuous sidewalk on the north side of Lakeshore Drive from Petite Lane to Maine Avenue;
4. Repair and/or complete sidewalks on Maine Avenue from Woodside Avenue to Maplevue Street; and
5. Continuous sidewalk on the north side of Woodside Avenue from Maine Avenue to Channel Road.

Based on the input provided by the Lakeside Community Planning Group, the two following projects from the Pedestrian Concept Plans selected to be Priority Projects include:

- ♦ Maplevue Street Sidewalk Installation from Ashwood Street to Maine Avenue
- ♦ Laurel Street Sidewalk Installation on the north side from Ashwood Street to River Street

Project descriptions and preliminary cost estimates have been prepared for these projects, found in the following pages of this document.

The preliminary cost estimates are intended to provide a general order of magnitude cost for the purpose of evaluating implementation potential and pursuit of funding sources. Improvement items and quantity takeoffs are based on the conceptual plans provided within this Pedestrian Area Plan and gross measurements done in the field or from aerial mapping.

Since these estimates are preliminary in nature and based on a conceptual plan they shall not be construed to represent actual construction costs. Final quantities and construction costs are subject to change, which would occur following detailed analysis, accurate base maps, preliminary design by a civil engineer, and evaluation of potential impacts to traffic by a traffic engineer. Final engineering design may further change the quantities and construction costs.

Any costs for additional rights of way/easement acquisition, environmental mitigation, final engineering design, engineering survey, and other soft costs/development fees are not included. Drainage facilities for conveyance, detention and water quality control are also not included in these estimates.

Since the preparer of these cost estimates has no control over the cost of labor, materials, equipment, contractors' method of determining unit prices, competitive bidding or market conditions, each cost estimate should be considered an "Opinion of Probable Construction Cost" and is made on the basis of the preparer's experience and represents their best judgment as design professionals familiar with the construction industry. Preparer does not guarantee that proposals, bids, or the actual construction cost will not vary from these cost estimates.

A. MAPLEVIEW STREET SIDEWALK INSTALLATION (SEGMENT FROM ASHWOOD STREET TO MAINE AVENUE)

Existing Conditions: Mapleview Street is a four-lane roadway that provides access from SR-67 into Lakeside. Just east of SR-67, the Lakeside Rodeo and El Capitan High School are located on the north side of Mapleview Street and mixed residential uses area located on the south side.



Both sides of Mapleview Street currently have discontinuous sidewalks and large breaks in the pedestrian connections between Main Avenue and Ashwood Street. While an existing unpaved shoulder provides some room for pedestrians to walk along and prevents them from walking within the travel lanes, the high speeds of vehicular traffic coming to and from SR-67 can make walking along this segment unsafe for pedestrians. In addition, landscaping in some sections along Mapleview Street is overgrown and forces the pedestrians to walk into the roadway.



Project Description: The project includes installation of a concrete sidewalk, plus curb and gutter, to match existing sidewalk on Mapleview Street. The installation of a complete sidewalk along Mapleview Street will provide a continuous pedestrian connection from Maine Avenue to Ashwood Street, where an existing school crosswalk is striped at the intersection. At the corners of intersections, ADA ramps are to be included to provide access for all users and prevent pedestrians from traveling within the vehicular lanes.

See Table 4 Cost Estimate for details.

**Table 4: COST ESTIMATE - MAPLEVIEW STREET SIDEWALK INSTALLATION
(between Ashwood Street and Maine Avenue)**

For Planning Purposed Only

Item Description	Qty.	Unit	Unit Cost (\$'s)	Amount	Subtotal	Notes & Assumptions ^{1,2}
Mapleview Street -- Continuous sidewalks on both sides between Ashwood St and Maine Ave						
Pedestrian Infrastructure					\$242,360	
Concrete curb and gutter (north side)	1,235	LF	\$44.00	\$54,340		
Concrete sidewalk – eight feet wide (north side)	9,880	SF	\$16.00	\$158,080		
Concrete curb and gutter (south side)	135	EA	\$44.00	\$5,940		
Concrete sidewalk – five feet wide (south side)	675	SF	\$16.00	\$10,800		
Crosswalk striping	3	EA	\$400.00	\$1,200		Ladder style striping at intersections with Maine Ave and Ashwood St, across Mapleview St
Crosswalk Pedestrian Head Countdowns	4	EA	\$1,000.00	\$4,000		At intersections with Ashwood St and Maine Ave, both directions across Mapleview St
Wheelchair Ramps (w/ warning surface half domes)	2	EA	\$4,000.00	\$8,000		On north side of Mapleview St, at intersection with Vine St
Miscellaneous Improvements					\$20,995	
Asphaltic Concrete Pavement Removal	1,235	SF	\$7.00	\$8,645		Removal includes ac berm, North side of street
Sawcut Existing Asphaltic Concrete Pavement	1,235	LF	\$10.00	\$12,350		

1 – Unit Costs based on City of San Diego Unit Price List, January 2009; however, these costs were doubled to reflect previous experience with pedestrian improvement projects.

2 – All items listed include installation costs.

SF = Square Foot

EA = Each

LS = Lump Sum

LF = Linear Foot

Construction Subtotal: \$263,355

25% Contingency **\$65,839**

Total Construction Cost: \$329,194

Mobilization (10%): **\$32,919**

Survey (2%): **\$6,584**

Design (15%): **\$49,379**

Total Cost Estimate for Improvements \$418,000

B. LAUREL STREET SIDEWALK INSTALLATION (SEGMENT FROM ASHWOOD STREET TO RIVER STREET)

Existing Conditions: Laurel Street comprises of residential land uses east of Vine Street and industrial uses west of Vine Street. Laurel Street connects to Ashwood Street and provides a significant link for students from El Capitan High School to the surrounding residential neighborhoods. Currently, there are no sidewalks along either side of Laurel Street and vehicles park in the shoulder adjacent to the striped bike lane, thereby leaving no walking space for the pedestrian other than alongside the vehicular travel way.

Project Description: The project includes installation of a concrete sidewalk, plus curb and gutter, along Laurel Street from River Street to Ashwood Street. The installation of a complete sidewalk along Laurel Street will provide a continuous pedestrian connection through the area, particularly for students traveling to and from the adjacent residential neighborhoods to El Capitan High School. Construction of a sidewalk will also minimize the existing potential of conflict between the parked vehicles, bicyclists, and pedestrians.

A concrete sidewalk plus curb and gutter will be constructed along the northwest corner of the intersection at Laurel Street and Ashwood Street. Under existing conditions, southbound right-turning traffic and eastbound left-turning traffic is free flowing without traffic control. While this project does not propose to change traffic control at the intersection, it includes construction of the curb to improve visibility of the pedestrians.

See Table 5 Cost Estimate for details.

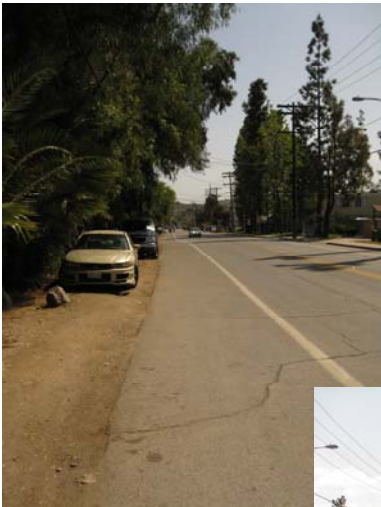


Table 5: COST ESTIMATE – LAUREL STREET BETWEEN ASHWOOD STREET AND RIVER STREET (North side)

For Planning Purposed Only

Item Description	Qty.	Unit	Unit Cost (\$'s)	Amount	Subtotal	Notes & Assumptions ^{1,2}
Laurel Street -- Continuous sidewalks on north side between Ashwood St and River St and closing gap on Ashwood north of Laurel St						
Pedestrian Infrastructure					\$169,220	
Concrete curb and gutter	1,355	LF	\$44.00	\$59,620		
Concrete sidewalk – five feet wide	6,775	SF	\$16.00	\$108,400		
Crosswalk striping	3	EA	\$400.00	\$1,200		intersections with Maine Ave, Vine St, and east side of Ashwood St
Miscellaneous Improvements					\$9,485	
Asphaltic Concrete Pavement Removal	1,355	SF	\$7.00	\$9,485		Along Ashwood St west side gap

1 – Unit Costs based on City of San Diego Unit Price List, January 2009; however, these costs were doubled to reflect previous experience with pedestrian improvement projects.

2 – All items listed include installation costs.

SF = Square Foot

EA = Each

LS = Lump Sum

LF = Linear Foot

Construction Subtotal: \$178,705

25% Contingency **\$44,676**

Total Construction Cost: \$223,381

Mobilization (10%): **\$22,338**

Survey (2%): **\$4,468**

Design (15%): **\$33,507**

Total Cost Estimate for Improvements \$284,000